

BEFORE THE FEDERAL COMMUNICATIONS COMMISSION

WASHINGTON, D.C., 20554

In the Matter of

Broadband Needs in Education,

GN Docket Nos. 09-47, 09-51, 09-137

Including Changes to E-rate Program to

CC Docket No. 02-6

Improve Broadband Deployment

WC Docket No. 05-195

NBP Public Notice #15

**COMMENTS OF**

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Patrick Lanthier, Chairman of the Emergency Communications Leadership & Innovation Center (eCLIC), files these additional comments in response to the Commission's NBP Public Notice #15 seeking comment, as part of the Commission's development of a national broadband plan, on the various issues related to broadband access in education. The Commission poses 14 categories of questions in this notice. While we may provide additional comments later, we will focus on Question 14, "OPEN CALL", which seeks "additional case studies, research, and other evidence that may provide additional insight...", and, Questions 12 and 13, which deal with E-RATE FUNDING & DISBURSEMENT.

### **"Connected, Protected, Educated Communities - CPEC"- EDUCATION & SAFETY**

Our key recommendation to the Commission is that it seeks to help create a holistic approach to Broadband Needs in Education by actively including the safety needs of educators, students and their communities. After all, school safety is a prime responsibility for all educators. We have clearly demonstrated that schools-centered innovative wireless broadband technologies coupled with collaborative teamwork (schools, police, fire, parks, health, transportation, special access needs, local organizations) produce unparalleled synergistic effects that create immediate impacts for school safety, community safety, and education. In our example, explained in our November 20, 2009 Comments to the Commission, schools-centered wireless broadband networks (LINC, in Livermore, California) are used daily for educational purposes, school safety, community protection, and, when needed, in emergency response and recovery. Our approach, "Connected, Protected, Educated Communities" (CPEC), was developed after decades of real-world field experience and with inputs from scores of experts around the globe. We are now at a time when wireless broadband is very cost effective, increasingly powerful and capable. We stand ready to assist the Commission as it seizes the moment to help create "Connected, Protected, Educated Communities" (CPEC)...via its National Broadband Plan.

**We seek the "Biggest Bang for the Buck" ... are "Open to Every Demonstrably Good Idea" ...need "Exciting Ideas and Proposals" ...welcome "Good, Hardheaded Feedback" ...We Cannot Hang Back and Hope for the Best"... need to "Get It Up and Running Relatively Quickly" and, ...we "Don't Need New Technologies"**

#### **– President Obama, December 3, 2009**

We strongly agree with the President's comments at his December 3, 2009 "Jobs Summit" and we assert that they apply directly to the Commission's development of a national broadband plan...and, **our plea (20 Nov.) to specifically and holistically include the safety needs of educators, students and their communities in the National Broadband Plan.**

A holistic (CPEC, LINC & LINCTEST) approach to the broadband needs in education will definitely create the "biggest bang for the buck" because it will:

1. Create campus-wide wireless networks serving the daily educational needs of students and teachers;

2. Provide standard internet protocol networks that may easily support devices (cameras, sensors, locks, identifiers, locators, etc.) for daily use by administrators;
3. Enable survivable high speed networks supporting the highest possible level of school and community emergency response for all collaborators (school administration, police / fire / healthcare / transportation / parks commanders) via Common Operating Picture capabilities (Shared Maps, Video, Audio, Text, etc.);
4. Help build new infrastructure, New Economy job skills and students' interest in STEM areas (Science, Technology, Engineering, and Math), via our LINCTEST approach (yes, students can quickly learn to deploy wireless networks...and, develop STEM interests due to the actual deployment experience); and,
5. Apply existing technologies and approaches that have proven in the field to be reliable, survivable, manageable, upgradable and exceedingly easy to use by many users with varying needs.

Please note that we can assert the five points above because, as President Obama might say, they are “demonstrably good ideas”. We know they are good ideas and they do / can work. See our November 20 Comments for more information.

**E-Rate and Other Funding for Broadband in Education Should Focus Sustained and Leveraged Funding to Support Efforts with the Greatest (Holistic) Value Proposition... Get the “Biggest Bang for the Buck”... Create “Connected, Protected, Educated Communities - CPEC”**

The President’s “Biggest Bang for the Buck” statement should drive Broadband support funding, specifically including E-Rate, toward focused efforts with the greatest Value Proposition for the served community (see the points above). This means that the commission must look beyond limited “education-only” thinking and specifically include a more holistic schools-centered community safety (multi-user) perspective, such as CPEC.

In addition, the Commission should apply the potential impacts of leverage on the Value Proposition (as commonly practiced by business analysts). In our case, the CPEC approach (as we have seen in the Police officers’ use of the LINC network) leverages the School District’s investment for a valuable community use outside of the traditional “education-only” use model. Indeed, the value for the schools is very real...from a school safety standpoint. Of course, during a major emergency, powerful collaborative networks that support all approved users (schools, police, fire, healthcare, parks, transportation, etc.) and broader school-centered community needs are incredibly valuable (as seen in the post-Katrina wireless Hastily Formed Networks deployed in Mississippi by our friends at the Naval Postgraduate School).

It is important to note that LINC-type leveraging cuts across organizational “silos”. This is not a minor matter. Collaboration at the “real people” level is required. Hence the LINC acronym stands for “Livermore Info-Net Collaborative”. We recommend that the FCC leadership should

reach out to other safety-focused federal agencies to lead a collaboration at the Federal level that mirrors the LINC team, so that the National Broadband Plan is a holistic plan that creates “Connected, Protected, Educated Communities - CPEC”, with leveraged financials that improve the value proposition. First responders and other safety-focused entities realize real benefits from the CPEC / LINC approach because very high speed broadband capabilities are extended into numerous large patches of the community...at schools that may become recovery / relief sites...or, Extensible Emergency Operations Centers (E2OC). Again, LINC has demonstrated this survivable advanced broadband-equipped E2OC capability, with WiFi, WiMax, Satellite, Ultra-WideBand, Video, Common Operational Picture, emergency power, etc. In fact, the LINC approach could be replicated easily and quickly in many states. In California (where LINC is), we could leverage the Broadband connections that go to virtually every public university and school district (created and supported by programs such as CalREN and CENIC (Corporation for Education Network Initiatives in California)). All we need is broader sustainable support for the LINC approach. With such support, we can bring the LINC benefits to our Nation.

**Conclusion: We have a “Demonstrably Good Idea”...that “Does Not Need New Technologies”... provides the “Biggest Bang for the Buck”...and, “Good Hardheaded Feedback” from actual use...**

We have worked on communications programs for education, safety and economic development for decades. We now have a golden opportunity to really do it right and meet many needs by collaborating across traditional organizational “silos”. We urge the Commission to think and act holistically by encouraging approaches that meet multiple needs (education, school & community safety, New Economy job creation, and STEM interest development). E-RATE funding and disbursement should be prioritized and focused on programs that meet the multiple needs articulated in these comments and demonstrate leveraging of synergistic Federal, State and Local programs. In that way, we will achieve the “biggest bang for the buck”.

For more information on programs that demonstrate this approach, please refer to our comments in this matter filed with the FCC on November 20, 2009.

December 11, 2009